

Survey Duties of the County Road Engineer

A White Paper Summary in Regard to Surveying

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History

The County Engineer holds a unique position and responsibilities under state law. Not only is that position the "Chief Engineer" for the largest set of assets in any county, the county road system, it is also given a number of other responsibilities to assure that roads and other engineering assets are properly constructed and maintained.

It should be noted that the County Engineer position evolved from a County Surveyor position. It was recognized many years ago that the principal responsibilities had evolved much more in the engineering area than in surveying. However, surveying is, and has remained, a notable part of those responsibilities in that a significant amount of 'surveying' is required to properly lay out, engineer and construct roads in particular. Civil engineering training in every college or university includes courses in surveying, notably cadastral and aerial surveying, in that civil projects by their very nature involve significant impacts to land areas, and thus typically to multiple ownerships.

In addition, the Office of the County Engineer is one of the few "offices of record", responsible for keeping various records, again notably survey records, in perpetuity. That added responsibility places a unique burden on those who hold that office to adequately understand not only the requirement, but with sufficient knowledge to assure that such records are appropriate.

Current Practice

County engineers in particular, but municipal engineers and consultants who work in this area as well, by necessity must understand, and to some degree, practice various aspects of surveying. Laying out and constructing civil projects requires knowing where property boundaries are, what the impacts to the terrain and surrounding natural and man made features will be, and how to fit those together to obtain results satisfactory not only to the community but that fit within fiscal and constructability constraints as well.

County Engineers across the state address these issues in a variety of ways. First, they recognize well their historical and legal responsibilities under state law. Extracts from those laws follow. In doing so, where practical and necessary, most often in complex urban areas, but in other areas as well, it is a common practice to engage a licensed Land Surveyor, either on staff or by consulting contract, to perform those surveys where property boundaries are the primary element. At the same time, simple reconstructions and rights-of-way elements by necessity are dealt with by the Engineer. Even more important are the elements that the Fall 2003 Washington Board Journal addresses, including topographic surveys. Not only are Civil Engineers typically uniquely qualified, but of necessity practice these surveys on a regular basis.

Particularly where staffing is limited, it is essential that they retain the clear rights to continue those practices, while maintaining the flexibility and responsibility to acquire Land Surveyor assistance where appropriate.

Any questions of inappropriate practice have, and should continue to be, resolved through the formal complaint process to the Board, and any civil liability imposed on the Engineer under law.

The questions raised in the Journal may be resolved from the perspective of the County Engineer simply by the Board recognizing the Legislative intent of existing laws.

Perhaps a better solution that the Board may wish to entertain, is to request the Legislature reinstate the "incidental practice" of surveying that existed before 1947. That solution would benefit not only County Engineers, but also Municipal Engineers and Consulting Engineers engaging in those areas. It would clarify not only a long standing, but also practical solution to the issue raised in the Journal

Summary of RCW's affecting County Engineers

RCW 36.75.050

- The powers and duties vested in or imposed upon the boards (of county commissioners) with respect to establishing, examining, surveying, constructing, altering, repairing, improving, and maintaining county roads, shall be exercised under the supervision and direction of the county road engineer.

RCW 36.77.010

- prepare such maps, plans, and specifications as shall be necessary and sufficient (for) any county road (to be) laid out and established and altered, widened, or otherwise constructed or improved

RCW 36.80.030

- have supervision, under the direction of the board (for all county roads), of
 - establishing
 - laying out
 - constructing
 - altering
 - improving
 - repairing
 - maintaining.

RCW 36.80.040

- record and file in his or her office
- all matters concerning the public roads, highways, bridges, ditches, or other surveys of the county
 - with the original papers, documents, petitions, surveys, repairs, and other papers
 - to have the complete history of any such road, highway, bridge, ditch, or other survey
- and shall number each construction or improvement project.

RCW 36.80.050

- keep a highway plat book in his office ... accurately platted all public roads and highways established by the board

RCW 36.80.070

- All road construction work, except minor construction work, contract or day labor, shall be in accordance with plans and specifications prepared therefore by or under direct supervision of the county road engineer.

RCW 36.81.060

- The county road engineer shall file with his report a correctly prepared map of the road as surveyed, which map must show the tracts of land over which the road passes, with the names, if known, of the several owners thereof, and he shall file therewith his field notes and profiles of such survey.

RCW 36.86.050

- ... the road engineer, at the time of establishing, constructing, improving, or paving any county road, shall fix permanent monuments at the original positions of all United States government monuments at township corners, section corners, quarter section corners, meander corners, and witness markers, as originally established by the United States government survey, whenever any such original monuments or markers fall within the right-of-way of any county road, and shall aid in the reestablishment of any such corners, monuments, or markers destroyed or obliterated by the construction of any county road heretofore established, by permitting inspection of the records in the office of the board and the county engineering office.